Title (en)

NEGATIVE ELECTRODE FOR ELECTRIC DEVICE, AND ELECTRIC DEVICE USING THE SAME

Title (de)

NEGATIVELEKTRODE FÜR EINE ELEKTRISCHE VORRICHTUNG UND ELEKTRISCHE VORRICHTUNG DAMIT

Title (fr)

ELECTRODE NÉGATIVE POUR DISPOSITIF ÉLECTRIQUE ET DISPOSITIF ÉLECTRIQUE L'UTILISANT

Publication

EP 2924772 B1 20210317 (EN)

Application

EP 13856532 A 20131119

Priority

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- JP 2013081117 W 20131119

Abstract (en)

[origin: EP2924772A1] [TECHNICAL PROBLEM] There is provided a negative electrode for an electric device such as a Li ion secondary battery capable of exhibiting well-balanced characteristics of a high cycle property and a high initial capacity. [SOLUTION TO PROBLEM] The negative electrode for an electric device includes a current collector and an electrode layer containing a negative electrode active material, a conductive auxiliary agent and a binder and formed on a surface of the current collector, wherein the negative electrode active material contains an alloy represented by the following formula (1): Si x Sn y M z A a (in the formula (1), M is at least one metal selected from the group consisting of Al, V, C and a combination thereof, A is inevitable impurities, and x, y, z and a represent mass percent values and satisfy the conditions of 0<x<100, 0<y<100, 0<z<100, 0#¤a<0.5, and x+y+z+a=100), and elastic elongation of the current collector is 1.30% or greater.

IPC 8 full level

C04B 35/01 (2006.01); **C01B 33/00** (2006.01); **C22C 1/04** (2006.01); **C22C 13/00** (2006.01); **C22C 24/00** (2006.01); **C22C 27/02** (2006.01); **C22C 28/00** (2006.01); **C22C 29/18** (2006.01); **C22C 30/00** (2006.01); **C22C 30/04** (2006.01); **H01M 4/02** (2006.01); **H01M 4/04** (2006.01); **H01M 4/134** (2010.01); **H01M 4/38** (2006.01); **H01M 10/052** (2010.01); H01M 4/62 (2006.01); H01M 4/66 (2006.01)

CPC (source: CN EP KR US)

C01B 33/00 (2013.01 - EP US); **C04B 35/013** (2013.01 - CN EP US); **C22C 1/0416** (2013.01 - CN EP US); **C22C 1/0483** (2013.01 - CN EP US); **C22C 1/1036** (2013.01 - US); **C22C 1/1084** (2013.01 - US); **C22C 13/00** (2013.01 - CN EP KR US); **C22C 24/00** (2013.01 - CN EP US); **C22C 27/025** (2013.01 - EP US); **C22C 29/18** (2013.01 - CN EP KR US); **C22C 30/00** (2013.01 - CN EP US); **C22C 30/04** (2013.01 - CN EP US); **H01M 4/0426** (2013.01 - CN EP US); **H01M 4/134** (2013.01 - CN EP KR US); **H01M 4/136** (2013.01 - US); **H01M 4/386** (2013.01 - CN EP KR US); **H01M 4/387** (2013.01 - CN EP KR US); **H01M 4/621** (2013.01 - KR); **H01M 4/624** (2013.01 - KR); **H01M 4/661** (2013.01 - CN); **H01M 4/662** (2013.01 - CN); **H01M 10/052** (2013.01 - CN EP KR US); **H01M 10/0525** (2013.01 - US); C01P 2006/40 (2013.01 - US); C04B 2235/3203 (2013.01 - CN EP US); C04B 2235/3275 (2013.01 - CN EP US); C04B 2235/3279 (2013.01 - CN EP US); H01M 4/621 (2013.01 - CN EP US); H01M 4/624 (2013.01 - CN EP US); H01M 4/661 (2013.01 - EP US); H01M 4/662 (2013.01 - EP US); H01M 4/663 (2013.01 - EP US); H01M 4/668 (2013.01 - EP US); H01M 2004/021 (2013.01 - EP US); H01M 2004/027 (2013.01 - EP US); H01M 2220/20 (2013.01 - EP US); Y02E 60/10 (2013.01 - EP KR US); Y02T 10/70 (2013.01 - US)

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